

03040206-08
(Kingston Lake)

General Description

Watershed 03040206-08 (formerly 03040206-130) is located in Horry County and consists primarily of **Kingston Lake** and its tributaries. The watershed occupies 83,448 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 39.2% agricultural land, 32.5% forested wetland, 16.6% forested land, 8.7% urban land, 2.2% scrub/shrub land, 0.6% nonforested wetland, and 0.2% water.

Kingston Lake accepts drainage from Jacks Bay, Alligator Swamp, and White Oak Swamp. White Oak Swamp receives drainage from Little White Oak Swamp (Cane Branch), Horsepen Branch, Huckleberry Branch, Bug Swamp (Bay Gully Branch, Bayboro Branch, Hellhole Swamp), and Fox Branch. Camp Swamp enters the system next followed by Horsepen Creek, Maple Swamp (Big Baxter Swamp, Little Baxter Swamp, Horse Creek, Cross Branch, Poplar Swamp, Booth Branch, Smith Branch, Boggy Swamp), Grier Swamp (Priver Branch, Mill Branch, Long Swamp, St. Paul Branch, Brown Swamp, Mary Branch), and Crab Tree Swamp (Ned Creek, Thompson Swamp, Oakey Swamp, Beaver Hole Swamp, Altman Branch). The Kingston Lake Watershed drains into the Waccamaw River. There are a total of 183.8 stream miles and 161.8 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
PD-699	BIO	FW	KINGSTON LAKE SWAMP AT SR 139
PD-700	BIO	FW	WHITEOAK SWAMP AT SR 97
MD-158	S/W	FW	CRAB TREE SWAMP AT LONG ST. BELOW CONWAY #1 POND OUTFALL
MD-107	S/INT	FW	KINGSTON LAKE NEAR PUMP STATION ON LAKESIDE DRIVE IN CONWAY

Kingston Lake Swamp (PD-699) – Aquatic life uses are fully supported based on macroinvertebrate community data.

Whiteoak Swamp (PD-700) – Aquatic life uses are fully supported based on macroinvertebrate community data.

Crab Tree Swamp (MD-158) – Aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low dissolved oxygen concentration conditions. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. A significant increasing trend in dissolved oxygen concentration and a decreasing trend in total phosphorus concentration suggest improving conditions for these parameters. A very high concentration of cadmium was measured in the 2003 sediment sample. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Kingston Lake (MD-107) – Aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low dissolved oxygen concentration conditions. Although dissolved

oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Significant decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria concentration.

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD)</i>	<i>NPDES# TYPE COMMENT</i>
MAPLE SWAMP HOT MIX, INC./ADRIAN MINE PIPE #: 001 FLOW: M/R	SCG730422 MINOR INDUSTRIAL

Nonpoint Source Management Program

Mining Activities

<i>MINING COMPANY MINE NAME</i>	<i>PERMIT # MINERAL</i>
THOMPkins & ASSOCIATES, INC. WEST MINE	0638-51 LIMESTONE
HOT MIX, INC. ADRIAN MINE	1489-51 SAND
GOODSON CONSTRUCTION COMPANY HATCHELL PIT	1646-51 SAND
LEE MCCORMICK MCCORMICK MINE	1708-51 SAND/CLAY
JASON WHITE CONSTRUCTION CO., INC. HARVEY ROAD MINE	1743-51 SAND/CLAY
FAITH LANDSCAPING, LLC FAITH MINE	1613-51 SAND

Water Quantity

Portions of this watershed fall within the Waccamaw Capacity Use Area and large groundwater uses must be reported (see Capacity Use Program p.27).

Growth Potential

There is a moderate potential for residential and commercial growth in this watershed, which contains a portion of the City of Conway. Water and sewerage infrastructure is located in and around Conway, and water is available along the U.S. Hwy 701 corridor. An industrial area is located along U.S. Hwy 701 and should see growth due to an existing rail line and highways that make the area accessible from all directions. The proposed Preferred Alternative route of I-

73 (Southern Corridor) would cross this watershed and could bring some growth to the area, especially around interchanges.

Watershed Protection and Restoration

Special Projects

Wetland Program Development Grant

In 2005, USEPA Region IV awarded a 4-year Wetland Program Development Grant to build local capacity for watershed planning in the Kingston Lake Watershed. Coastal Carolina University's Waccamaw Watershed Academy is serving as the lead agency. Collaborators include Horry County, the City of Conway, and the Waccamaw Regional Council of Governments along with various state and federal agencies including SCDHEC BOW and OCRM. The primary project goal is development of a watershed management plan. Current activities include a volunteer monitoring program compliant with USEPA quality control criteria with online data access. The increased local capacity for watershed planning is intended to stimulate and support similar efforts in the other watersheds of the Waccamaw River Basin. These efforts are a follow on to a USEPA 319 Program project conducted from 1999 to 2002 in which significant nonpoint pollution problems were quantified. A demonstration stormwater BMP was also assessed for pollution removal efficiency and is now being used as an educational resource. Web pages for these past and present projects are located at <http://www.coastal.edu/wwa/kinglake.html> .